



# Indiana State Department of Health

2012

## Indiana Healthcare Associated Infections Report

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## **EXECUTIVE SUMMARY**

Healthcare associated infections (HAI) are infections that patients can acquire while receiving treatment in a healthcare setting. These infections are the most common complication of hospital care and are one of the top ten leading causes of death in the United States. As the cause of such significant morbidity and mortality, it is no surprise that preventing these infections has become a top priority of public health agencies across the nation.

The purpose of public reporting of HAI data is to increase the overall awareness of HAIs, encourage infection prevention efforts in hospitals, and help consumers make more informed decisions about their healthcare. Indiana began mandatory reporting of HAIs starting January 1, 2012. Hospitals throughout the state are required to report infection data for three types of HAIs: central line associated bloodstream infections (CLABSI), catheter associated urinary tract infections (CAUTI), and surgical site infections (SSI). The data received from hospitals allows for evaluation of the overall HAI burden in the state and targeting specific areas for improvement.

Indiana's first year of reporting resulted in positive findings in certain HAI categories, but there are still several areas for improvement. In 2012, 119 hospitals were required to report HAI data to the ISDH. These hospitals observed 41% fewer CLABSIs than predicted, based on national aggregate data. In contrast, Indiana hospitals reported 12% more CAUTIs than predicted. For SSIs, hospitals reported 39% fewer infections associated with abdominal hysterectomies, but no significant change was reported in SSIs associated with colon surgeries.

The Indiana State Department of Health (ISDH) is committed to preventing infections in Indiana and will continue to monitor and report HAI data. This initial report will serve as a benchmark for infection prevention efforts in Indiana hospitals, while future reports will show infection trends over time and allow the ISDH to monitor progress towards state and national prevention goals. The ISDH hopes that the information presented will be beneficial to providers and consumers alike. When researching healthcare facilities, the ISDH encourages consumers to consider multiple sources of information and to always discuss their healthcare options with a healthcare provider.

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The Indiana State Department of Health would like to thank all of the hospitals and infection prevention staff that contributed data to this report. Their hard work and dedication to infection prevention will help to lower the HAI burden in the state and create a healthier and safer Indiana.

## **ACRONYMS AND ABBREVIATIONS**

APIC- Association for Professionals in Infection Control and Epidemiology

ARRA- American Recovery and Reinvestment Act of 2009

CAH- Critical Access Hospital

CAUTI- Catheter Associated Urinary Tract Infection

CDC- Centers for Disease Control and Prevention

CI- Confidence Interval

CLABSI- Central Line Associated Bloodstream Infection

CLIP- Central Line Insertion Practices

CMS- Centers for Medicare and Medicaid Services

HAI- Healthcare Associated Infection

HHS- U.S. Department of Health and Human Services

IAC- Indiana Administrative Code

ICU- Intensive Care Unit (also referred to as a critical care unit or CCU)

IP- Infection Preventionist

IPPS- Inpatient Prospective Payment System

ISDH- Indiana State Department of Health

LTAC- Long Term Acute Care Hospital

NHSN- National Healthcare Safety Network

NICU- Neonatal Intensive Care Unit

PICU- Pediatric Intensive Care Unit

SCIP- Surgical Care Improvement Project

SIR- Standardized Infection Ratio

SSI- Surgical Site Infection

# **INTRODUCTION**

## **Background**

Healthcare associated infections (HAIs) are infections that patients can develop while receiving treatment in a healthcare setting. They can be acquired in any type of healthcare setting such as a hospital, outpatient surgery center, dialysis center, long term care facility, rehabilitation center, or community clinic. They can also occur during the course of medical treatment at home.

HAIs can be caused by a wide variety of infectious agents, including bacteria, fungi, viruses, and other pathogens. Any patient in a healthcare setting can be at risk for developing an HAI, but some patients are more vulnerable than others. Age and overall health status can put a patient at risk; young children, the elderly, and patients with weakened immune systems or underlying conditions have a higher risk of developing an HAI. Other risk factors associated with HAIs include the use of invasive medical devices such as catheters or ventilators; surgical procedures; prolonged hospital stay; improper antibiotic use; contaminated healthcare environment; and the transmission of diseases between patients, visitors, and healthcare workers.

HAIs are the most common complication of hospital care, occurring in approximately 1 in every 20 patients.<sup>1</sup> These infections are one of the top 10 leading causes of death in the United States, accounting for an estimated 1.7 million infections and 99,000 associated deaths in 2002.<sup>2</sup> The financial burden attributable to these infections is estimated at \$28 to \$33 billion in excess healthcare costs each year.<sup>3</sup> These infections develop during the course of healthcare treatment and result in significant morbidity and mortality, prolonged duration of hospital stays, and additional diagnostic and therapeutic interventions which generate added costs to those already incurred by the patient's underlying disease.

Fortunately, many HAIs are preventable. Research shows that when hospital staff are aware of their infection issues and implement effective prevention strategies, rates of certain hospital infections can be decreased by more than 70 percent.<sup>4</sup> HAI data can give hospitals and public health agencies the information needed to establish the necessary prevention strategies that reduce infections and save lives.

## **National HAI Response**

The U.S. Department of Health and Human Services (HHS) has put a national focus on improving healthcare quality in the United States, and HAI prevention has become a top priority. In 2008, the HHS and other key stakeholders convened the Federal Steering Committee for the Prevention of Healthcare Associated Infections in an effort to coordinate HAI prevention efforts across federal agencies. They developed the National Action Plan to Prevent Healthcare

Associated Infections, which focuses on decreasing the incidence of HAIs and increasing adherence to recommended prevention practices. The plan involves several phases and provides guidance for preventing HAIs in acute care hospitals, ambulatory surgical centers, end-stage renal disease facilities, and long term care facilities. An overview of the National Action Plan can be found at <http://www.hhs.gov/ash/initiatives/hai/actionplan/index.html>.

As part of the plan, the Steering Committee developed the following national HAI prevention targets that the nation should aim to achieve by the end of 2013.

**Table 1: National 5-year HAI prevention targets**

HAI Metric	National 5-Year Prevention Target
Central Line Associated Bloodstream Infections (CLABSI)	50% reduction
Adherence to Central Line Insertion Practices (CLIP)	100% adherence
<i>Clostridium difficile</i> Infections (CDI)	30% reduction
Catheter Associated Urinary Tract Infections (CAUTI)*	25% reduction
Methicillin Resistant <i>Staphylococcus Aureus</i> (MRSA) Invasive Infections (Population)	50% reduction
MRSA Bacteremia	25% reduction
Surgical Site Infections (SSI)	25% reduction
Surgical Care Improvement Project Measures (SCIP)	95% adherence

\*Due to changes in the surveillance definition for CAUTI, the national target date has been extended to 2014.

## Indiana HAI Response

In September 2009, the ISDH was awarded a grant from the Centers for Disease Control and Prevention (CDC) to support state HAI prevention activities. The grant was funded through the American Recovery and Reinvestment Act of 2009 (ARRA). The HHS, Centers for Medicare and Medicaid Services (CMS), and the CDC administered this program. The Indiana Healthcare Associated Infection Initiative was developed with support from the federal grant. Indiana received funding through that grant for two projects:

1. The development of a state plan for the prevention of HAIs
2. A state HAI prevention initiative



The ISDH developed the Indiana Plan for the Prevention of Healthcare Associated Infections in December, 2009. The final version dated May, 14, 2010 is found at [http://www.in.gov/isdh/files/Indiana\\_Plan.pdf](http://www.in.gov/isdh/files/Indiana_Plan.pdf). This is part of the Healthcare Associated Infections Resource Center found at <http://www.in.gov/isdh/24769.htm>.

The ISDH convened a collaborative team of partners to help organize and implement a statewide HAI initiative. This initiative to reduce and prevent HAIs began with plans to include at least 80 health care facilities, including hospitals and nursing homes. Because of the great interest shown by facilities, the initiative was expanded in June 2010 to cover 200 facilities, including hospitals, nursing homes, ambulatory surgery centers, and dialysis centers. The state initiative concluded on December 31, 2011.

Goals of the Indiana Healthcare Associated Infection Initiative were to:

- Improve the identification of HAIs by health care providers
- Reduce the number of HAIs
- Increase public and healthcare worker awareness of HAIs

Objectives of the Indiana Healthcare Associated Infection Initiative were to:

- Create a state plan for HAIs
- Develop and implement an HAI surveillance and reporting system
- Develop and implement an HAI prevention initiative

An overview of the initiative can be found at [http://www.in.gov/isdh/files/Overview\\_of\\_Indiana\\_HAI\\_Initiative.pdf](http://www.in.gov/isdh/files/Overview_of_Indiana_HAI_Initiative.pdf). While the HAI initiative formally ended in 2011, the ISDH continued efforts to reduce and prevent HAIs by developing a website containing the Initiative materials and other HAI resources.

The ISDH adopted rules in September, 2011 that require all hospitals<sup>i</sup> licensed by the ISDH to report the following:

- CLABSI in all intensive care units (ICUs).
- SSIs for abdominal hysterectomies and colorectal<sup>ii</sup> surgeries.
- CAUTIs in adult and pediatric ICUs.

The rules, cited as 410 IAC 15-4, can be found at <http://www.in.gov/legislative/iac/T04100/A00150.PDF> beginning at page 64. The rules

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<sup>i</sup> If the hospital has no intensive care unit as defined by NHSN or does not perform the two surgeries, the hospital need not enroll with NHSN and will not be reporting any data.

<sup>ii</sup> The term colorectal was put in the rule in error. HAIs from colon surgeries are required to be reported as this is consistent with the CMS Inpatient Prospective Payment System (IPPS).

followed the initial HAI reporting requirements of the CMS Inpatient Prospective Payment System (IPPS) for acute care hospitals. Most hospitals participate in the IPPS in order to receive the additional percentage reimbursement from Medicare in exchange for their HAI data.

## **SURVEILLANCE METHODS**

### **National Healthcare Safety Network**

Hospitals that are required to report HAIs under the Indiana reporting rule submit their data electronically through the National Healthcare Safety Network (NHSN). The NHSN is a secure, internet-based surveillance system managed by the CDC to collect, analyze, and report HAI data. It is available for use by many different types of healthcare facilities including acute care hospitals, critical access hospitals, long term acute care hospitals (LTAC), long term care/nursing homes, dialysis centers, ambulatory surgery centers, and rehabilitation hospitals. The NHSN ensures data security, integrity, and confidentiality, and also allows healthcare facilities to share data in a timely manner with other healthcare facilities as well as with public health agencies.

Hospitals are required to develop monthly reporting plans in NHSN that indicate which modules, events, locations, and procedures they are using to conduct surveillance. This allows the CDC to know what information to include in its aggregate data pool that is used to develop a national comparison measure. Experts at the CDC developed specific protocols for use in NHSN that include surveillance definitions and detailed reporting methods. These protocols must be followed for reporting in NHSN and for the Indiana reporting requirements. (Please note that surveillance definitions may differ from clinical definitions. Surveillance definitions should never override clinical judgment when caring for a patient.) Hospitals review each potential infection to determine whether it meets the NHSN definition for an HAI. The information on each reportable HAI entered into NHSN by hospital staff includes demographic data on the patient as well as details on the specific infection. The hospital also collects and reports the numbers of surgical procedures performed each month, as well as the total number of days that devices such as urinary catheters or central lines are used in patients in the covered areas of the hospital.

Collection of data may vary from infection to infection and hospital to hospital. Some information is gathered through electronic systems and some is done by hand. The Infection Preventionist (IP) at each hospital plays a major role in the collection and reporting of the data. Depending on the staffing, the IP may or may not have other infection control staff to assist in these efforts. The use of a standard set of protocols helps to encourage consistent reporting across a wide range of healthcare facilities and staff with different methods of data collection. At this time, much time and effort goes into the collection and reporting process. While time intensive, the reporting of HAIs is critical in the effort to reduce or eliminate such infections. Not knowing the extent of the problem inhibits any efforts to address the infection problem. With the knowledge of infections, staff can see where efforts to reduce or eliminate infection have been successful or need more effort or resources.

## **Central Line Associated Bloodstream Infection (CLABSI) Surveillance**

A CLABSI is an infection in the bloodstream that results from the use of a central line. A central line is a tube placed in a patient's major vein, such as in the neck, chest, or groin, which is used to draw blood or give medications and fluids. The NHSN allows for CLABSI surveillance in any inpatient unit. Hospitals in Indiana are required to conduct surveillance for CLABSI in all ICU locations, including adult, pediatric, and neonatal units. Reporting occurs monthly and should include any infections occurring in the unit as well as totals for central line days and patient days. For an infection to be considered a CLABSI, it must meet all of the criteria established by the NHSN in its Patient Safety Protocol. The complete protocol for CLABSI surveillance can be accessed here:

[http://www.cdc.gov/nhsn/PDFs/pscManual/4PSC\\_CLABScurrent.pdf](http://www.cdc.gov/nhsn/PDFs/pscManual/4PSC_CLABScurrent.pdf).

## **Catheter Associated Urinary Tract Infection (CAUTI) Surveillance**

A CAUTI is an infection of the urinary tract that results from the use of an indwelling urinary catheter. An indwelling urinary catheter is a tube placed in a patient's bladder that is used to drain urine into a closed drainage system. The NHSN allows CAUTI surveillance in any inpatient unit. Hospitals in Indiana are required to conduct surveillance in adult and pediatric ICUs. Reporting occurs monthly and should include any infections observed in a particular month, as well as totals for central line days and patient days. For an infection to be considered a CAUTI, it must meet all of the criteria established by the NHSN in its Patient Safety Protocol. The complete NHSN protocol for CAUTI can be accessed here:

<http://www.cdc.gov/nhsn/PDFs/pscManual/7pscCAUTICurrent.pdf>.

## **Surgical Site Infection (SSI) Surveillance**

An SSI is an infection occurring after surgery at the site of the body where the surgery took place. Hospitals in Indiana are required to conduct surveillance for SSIs occurring after colon surgery and abdominal hysterectomy. Surveillance for SSI can occur in any inpatient or outpatient setting where the procedure is performed. Reporting occurs monthly and should include all infections observed as well as a total number of procedures performed. For an infection to be considered an SSI, it must meet all of the criteria established by the NHSN in its Patient Safety Protocol. The complete NHSN protocol for SSI can be accessed here:

<http://www.cdc.gov/nhsn/pdfs/pscmanual/9pscsscicurrent.pdf>.

## **Data Validation**

Data submitted through the NHSN by Indiana hospitals have not been externally validated by the ISDH. Several processes are in place, however, to ensure that the data is as accurate and complete as possible. First, the NHSN contains business rules and cross-field edit checks to prevent data entry errors; system alerts to inform users of missing data; and data quality reports to inform users of aberrant data. Second, the ISDH reviews the information submitted by each hospital to spot unusual patterns or information that might suggest reporting errors or incomplete reporting. Follow-up with the reporting hospital will resolve any questions about what has been reported. Finally, the ISDH provides each hospital its own data for written confirmation that the data is complete and accurate. This allows hospitals to make corrections and updates before the data is publicly reported. These processes ensure data to be as accurate as possible with the resources available.

## **Standardized Infection Ratio (SIR)**

The HAI data in this report are presented using a measure called the Standardized Infection Ratio, or SIR. The SIR is a summary measure used to track HAIs at the local, state, and national level over time. It adjusts for patients of varying risk within each hospital. The SIR compares the actual number of HAIs reported with the national baseline experience, adjusting for several risk factors that have been found to be significantly associated with differences in infection incidence.

National HAI reports are shifting towards the use of the SIR rather than rates. One of the benefits of using the SIR over a rate is it allows a hospital to summarize data across locations and procedures into a single number. That data can be used to determine if a hospital is doing better or worse than predicted, based on the experiences of similar hospitals nationally. The SIR allows hospitals to track infection prevention progress over time, detect trends, quickly identify when infection control efforts are working, and target specific areas where improvements are needed. Rates can still be very useful to hospitals for tracking infections; however, rates need to be appropriately risk adjusted and stratified.

The SIR is calculated by dividing the observed number of infections by the expected number of infections. (The expected number is also referred to as the “predicted” number, as an infection is not actually “expected”.) The observed number is the actual number of infections that occurred in a particular patient population during a period of time. The expected number is calculated using the national average rate over a specific baseline period, as well as hospital-specific denominator data. It is the number of infections that a hospital is predicted to have if their performance had been the same as the national baseline experience. Calculations for CLABSI

and SSI use national data from a 2006-2008 baseline period, while calculations for CAUTI use a 2009 baseline period.

$$\text{SIR} = \frac{\text{Observed Infections}}{\text{Predicted Infections}}$$

The SIR is interpreted by comparing it to 1.0, which is the national baseline SIR. This method compares a hospital's actual number of infections to what would have occurred if the hospital performed the same as the national baseline experience. If the SIR is less than 1.0, there were fewer infections observed than predicted. A lower SIR is desirable, as it suggests that infections have decreased. A SIR that is greater than 1.0 means there were more infections observed than predicted. A higher SIR is undesirable, as it suggests an increase in infections. A SIR that is equal to 1.0 means the number of observed infections was the same as the predicted number of infections.

The value of the SIR also represents the percent change in infections since the baseline period. If a hospital's SIR is less than 1.0, subtract the hospital's SIR from 1.0 to get the percent reduction. For example, a SIR of 0.75 would indicate a 25% reduction in infections since the baseline period ( $1.0 - 0.75 = 0.25$ ). If a hospital's SIR is greater than 1.0, subtract 1.0 from the hospital's SIR in order to get the percent increase. For example, a SIR of 1.30 would indicate a 30% increase in infections since the baseline period ( $1.30 - 1.0 = 0.30$ ). The following table summarizes several ways to interpret the SIR.

**Table 2: How to Interpret the SIR**

SIR < 1	SIR=1	SIR >1
Fewer infections observed than predicted	Same number of infections observed as predicted	More infections observed than predicted
Infections have been prevented since the baseline period	Infections have stayed the same since the baseline period	Infections have increased since the baseline period
$1 - \text{SIR} = \text{percent reduction}$	$1 - 1 = \text{no change}$	$\text{SIR} - 1 = \text{percent increase}$

It should be noted that the SIR is only calculated when the number of expected infections is greater than or equal to 1.0. When the number of expected infections is less than 1.0 there is not enough data to calculate a precise SIR and comparative statistics. In these cases, more than one year of data will need to be collected in order to establish a reliable SIR.

One must also look at the statistical significance of the data in order to determine whether the observed number of infections is truly different from the national experience, or if it is statistically similar. The p-value and 95% confidence interval (CI) are used to determine the statistical significance. If the p-value is greater than or equal to 0.05, there is no significant difference between the observed number of infections and the expected number. This means that the observed number of infections is similar to what was seen nationally. If the p-value is less than 0.05, there is a significant difference between the observed number of infections and the expected number. The value of the SIR (less than 1.0 or greater than 1.0) will then determine whether the hospital is doing better or worse than the national HAI experience.

The 95% CI can also be used to determine the significance of the data. It consists of two numbers, giving a range of values in which there is 95% certainty that the true value of the SIR falls within. If that range includes the number 1.0, the number of observed infections is not considered significantly different from the expected number. If that range does not include the number 1.0, the observed number of infections is considered significantly different from the expected number. It should be noted that the lower bound of the 95% CI is only calculated if the number of observed infections is greater than zero.

## **Cautions**

Use caution when making assumptions from the SIR, as additional factors may play a role in the value of a hospital's SIR. Hospitals with very intensive infection control programs can sometimes appear to have a higher SIR. Staff at these hospitals often receive additional training or perform data validation, leading to the identification of more infections than other hospitals. In contrast, hospitals that do not perform quality checks or validation may be at risk for underreporting infections, leading to a lower SIR. One other factor that can affect the SIR, especially in small patient populations, is that a slight change in the number of device days or procedures can change the significance level of the SIR.

For these reasons, care should be taken when interpreting the SIR. It should not be used to compare one hospital directly to another and this report should not be viewed as a ranking system for hospitals. The SIR should be used to compare a hospital's infection data to the national data and then monitor infection prevention progress over time. The tables in this report are intended to show whether a hospital's SIR is statistically significantly higher, lower, or

similar to the national data. As HAI surveillance continues, future HAI reports will be able to show how hospitals are progressing in their infection prevention efforts.



## **DATA**

Data used in this report were pulled from NHSN on September 26, 2013. This allowed a 9-month latency period for hospitals to enter their 2012 data into NHSN. Any updates to the data after September 26 are not reflected in this report but will be included in future reports. In 2012, 144 hospitals were licensed by the ISDH, of which 119 were required to report data for at least one type of HAI. Hospitals that did not have an ICU and did not perform abdominal hysterectomies or colon surgeries were not required to report any HAI data. The following table summarizes the characteristics of the 119 reporting hospitals.

**Table 3: Characteristics of Hospitals Reporting HAI Data to the ISDH**

Hospital Type	Number of Hospitals Reporting to ISDH	Percentage
Acute Care Hospital	84	70.6%
Critical Access Hospital (CAH)	33	27.7%
Long Term Acute Care Hospital (LTAC)	2	1.7%
Hospital Bed Size		
≤ 25	33	27.7%
26-50	14	11.8%
51-100	19	16.0%
101-200	26	21.8%
201-300	13	10.9%
301 +	14	11.8%

\* The 119 hospitals included in this table reported data for at least one month during 2012 for CLABSI (All ICUs), CAUTI (all ICUs, excluding NICU), or SSI (colon or abdominal hysterectomy).

### **Data Format**

The tables in this report display the statewide and hospital-specific data for the January 1, 2012-December 31, 2012 reporting period. Information includes hospital name, reporting location, number of device days or procedures, observed infections, expected infections, and the SIR with corresponding statistics (when applicable). If a SIR is able to be calculated, the table will include a comparison to the national HAI experience. If a hospital's number of observed infections is significantly lower than predicted, it will be labeled as "Lower" and shaded in

green. This indicates that the hospital performed better than the national HAI experience. If a hospital's number of infections is significantly higher than predicted, it will be labeled as "Higher" and will be shaded in red. This indicates the hospital performed worse than the national experience. If a hospital's number of observed infections is not statistically different from the predicted number of infections, it will be labeled "Same" and shaded in yellow. This indicates the hospital performed relatively similar to the national experience.

**Table 4: Data Presentation for National Comparison**

Number of infections was significantly lower (better) than the national experience	Number of infections was not significantly different from the national experience	Number of infections was significantly higher (worse) than the national experience
Lower	Same	Higher

### Minimum Reporting Thresholds

There are some instances when data must be suppressed in order to maintain confidentiality of private medical information. Hospitals with fewer than 50 central line days, 50 catheter days, or 20 surgical procedures have infection data suppressed in the CLABSI, CAUTI, and SSI categories, respectively. It is important to note that although data are not shown for these hospitals, they have met the Indiana reporting requirements and their data are included in the calculation of statewide SIRs.

## Statewide HAI Data

### Statewide CLABSI SIR

Table 5 shows the statewide SIR and corresponding statistics for CLABSIs reported in Indiana hospitals during 2012. This table includes 91 hospitals that reported CLABSI data from adult, pediatric, and neonatal ICUs. All LTAC ICU locations are excluded from these calculations. Reporting for LTAC ICU locations is relatively new in NHSN, and national baseline data for these locations has not yet been established. Rates are available for individual LTAC hospitals in Table 9, however, a statewide rate will not be provided due to having fewer than five LTAC hospitals reporting data. This CDC-recommended threshold is used when there is insufficient data to create a reliable statewide rate.

In 2012, Indiana hospitals reported 277 CLABSIs in 238,880 central line days from ICU locations. Indiana hospitals were predicted to have slightly more than 468 infections based on national data. These values resulted in a SIR of 0.592, meaning that Indiana hospitals reported approximately 41% fewer CLABSIs than they were predicted to have. The p-value and confidence interval indicate that the observed number of CLABSIs is significantly lower than what was predicted.

**Table 5: Statewide CLABSI SIR for ICU Locations, January 1, 2012- December 31, 2012**

Location	Central Line Days	Observed Infections	Expected Infections	CLABSI SIR	p-value	Confidence Interval	National Comparison
All ICU*	238,880	277	468.150	0.592	0.000	0.524, 0.666	Lower

CLABSI calculations use a 2006-2008 NHSN baseline period. Data in this report were last generated on September 26, 2013.

\*All ICU includes adult, pediatric, and neonatal ICUs. Excludes LTAC ICU locations.

## Statewide CAUTI SIR

The following table shows the overall state SIR and corresponding statistics for CAUTIs in Indiana. It includes 90 hospitals that reported CAUTI data from adult and pediatric ICUs. Neonatal ICUs are excluded, as reporting is not required from these locations, and LTAC ICUs are excluded from this table because national baseline data is not available for these locations. Rates for individual LTAC hospitals are reported in Table 11, but a statewide rate is unavailable due to fewer than five hospitals reporting.

In 2012, Indiana hospitals identified 542 CAUTIs in 255,595 central line days. Indiana was predicted to have almost 483 infections based on national data, resulting in a SIR of 1.122. This SIR value indicates that Indiana hospitals identified approximately 12% more infections than they were predicted to have, and the corresponding p-value and confidence interval indicate that the number of CAUTIs observed is significantly higher than what was predicted based on national data.

**Table 6: Statewide CAUTI SIR for ICU Locations, January 1, 2012- December 31, 2012**

Location	Catheter Days	Observed Infections	Expected Infections	CAUTI SIR	p-value	Confidence Interval	National Comparison
All ICU*	255,595	542	482.921	1.122	0.004	1.030, 1.221	Higher

CAUTI calculations use a 2009 NHSN baseline period. Data contained in this report were last generated on September 26, 2013.

\* Includes all adult and pediatric ICUs. Excludes LTAC ICU locations and NICU locations.

## Statewide SSI SIR

Table 7 shows the statewide SIR and corresponding statistics for SSIs in Indiana according to procedure type. It includes 113 hospitals that reported SSI data for colon surgeries and 109 hospitals that reported for abdominal hysterectomies. Reporting is required by ISDH for all SSIs resulting from colon surgeries and abdominal hysterectomies, but the data presented here is limited to in-plan, inpatient colon surgeries and abdominal hysterectomies in patients 18 years of age and older. Infections include deep incisional primary and organ/space SSIs with an event date within 30 days of the procedure. This method has been endorsed by the National Quality Forum for the CMS Quality Reporting Program and will allow for more accurate comparisons with data reported on the HHS Hospital Compare website.

In 2012, 233 SSIs were reported in 6,780 colon surgeries. Indiana hospitals were predicted to have approximately 221 infections based on national data. The resulting SIR of 1.055 indicates that approximately 6% more infections were observed than predicted; however, these results are not statistically significant, and the overall number of SSIs attributable to colon surgeries can be considered the same as the national experience.

For abdominal hysterectomies, 40 SSIs were identified in 6,658 procedures. Indiana hospitals were predicted to have slightly more than 65 infections based on national data calculations. The resulting SIR of 0.613 indicates that Indiana hospitals observed approximately 39% fewer infections than predicted. The p-value and confidence interval indicate that Indiana hospitals reported significantly fewer infections than predicted.

**Table 7: 2012 Indiana SSI Data by Procedure, January 1, 2012- December 31, 2012**

Procedure	Number of Procedures	Observed Infections	Expected Infections	SSI SIR	p-value	Confidence Interval	National Comparison
Colon surgery	6,780	233	220.763	1.055	0.214	0.924, 1.200	Same
Abdominal hysterectomy	6,658	40	65.302	0.613	0.001	0.438, 0.834	Lower

SSI calculations use a 2006-2008 NHSN baseline period. Data contained in this report were accessed on September 26, 2013. Data includes in-plan, inpatient colon and abdominal hysterectomy procedures in patients  $\geq 18$  years of age, and deep incisional primary and organ/space SSIs with an event date within 30 days of the procedure date. Excludes all superficial incisional SSIs and deep incisional secondary SSIs.

## **Hospital-specific HAI Data**

### **CLABSI SIRs**

Table 8 shows hospital-specific CLABSI data for ICU locations. Hospitals are grouped according to similar bedsize and then listed alphabetically. The data includes adult, pediatric, and neonatal ICUs; all LTAC ICU locations are excluded from this table due to the unavailability of a national SIR and corresponding statistics for comparison. Data for LTAC ICU locations will be presented separately as rates in Table 9. As with the statewide data, hospital-specific SIRs are compared to the national baseline data and color-coded to indicate whether infections were significantly higher than, significantly lower than, or the same as the national data. Hospitals without an ICU were not required to report and are indicated as such in the table. In addition, hospitals that reported fewer than 50 central line days have their data suppressed in order to protect patient confidentiality.

Of the 91 hospitals that reported CLABSI data, 55 had sufficient data to generate a SIR and be publicly reported. Seventeen hospitals reported significantly fewer infections than they were predicted to have, and only 1 hospital reported significantly more infections than predicted. Thirty-seven hospitals reported infection data similar to the national average.

**Table 8: Hospital-Specific CLABSI Data for All ICU\* Locations, January 1, 2012- December 31, 2012**

Hospital Name	Central Line Days	Observed Infections	Expected Infections	CLABSI SIR	p-value	Confidence Interval**	National Comparison
<b>Hospital Bedsize ≤ 25</b>							
Cameron Memorial Community Hospital Inc (Angola)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Community Hospital Of Bremen Inc (Bremen)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Decatur County Memorial Hospital (Greensburg)	8	†	†	†	†	†	†
Doctors Neuromedical Hospital & Brain Institute (Bremen)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Dukes Memorial Hospital (Peru)	49	†	†	†	†	†	†
Franciscan St. Francis Health (Carmel)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Gibson General Hospital (Princeton)***	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Greene County General Hospital (Linton)	19	†	†	†	†	†	†
Harrison County Hospital (Corydon)	22	†	†	†	†	†	†
Hind General Hospital LLC (Hobart)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Indiana University Health Bedford Hospital (Bedford)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Indiana University Health Blackford Hospital (Hartford City)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Indiana University Health Paoli Hospital (Paoli)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Indiana University Health Tipton Hospital Inc (Tipton)	75	0	0.113	---	---	---	---
Indiana University Health White Memorial Hospital (Monticello)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Margaret Mary Community Hospital Inc (Batesville)	84	0	0.126	---	---	---	---
Parkview LaGrange Hospital (LaGrange)	51	0	0.077	---	---	---	---
Perry County Memorial Hospital (Tell City)	9	†	†	†	†	†	†
Physicians' Medical Center LLC (New Albany)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pinnacle Hospital (Crown Point)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pulaski Memorial Hospital (Winamac)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Putnam County Hospital (Greencastle)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Rush Memorial Hospital (Rushville)	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Hospital Name	Central Line Days	Observed Infections	Expected Infections	CLABSI SIR	p-value	Confidence Interval**	National Comparison
Scott Memorial Hospital (Scottsburg)***	24	†	†	†	†	†	†
St. Vincent Clay Hospital Inc (Brazil)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Dunn Hospital Inc (Bedford)	23	†	†	†	†	†	†
St. Vincent Frankfort Hospital Inc (Frankfort)***	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Jennings Hospital Inc (North Vernon)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Mercy Hospital (Elwood)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Randolph Hospital Inc (Winchester)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Salem Hospital Inc (Salem)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Williamsport Hospital Inc (Williamsport)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sullivan County Community Hospital (Sullivan)	65	0	0.098	---	---	---	---
The Heart Hospital At Deaconess Gateway LLC (Newburgh)	434	1	0.651	---	---	---	---
Union Hospital Clinton (Clinton)	32	†	†	†	†	†	†
Wabash County Hospital (Wabash)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Woodlawn Hospital (Rochester)	99	0	0.149	---	---	---	---
<b>Hospital Bedsizes 26-50</b>							
Adams Memorial Hospital (Decatur)	159	0	0.239	---	---	---	---
Community Howard Specialty Hospital (Kokomo)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Dekalb Health (Auburn)	123	0	0.185	---	---	---	---
Indiana Orthopaedic Hospital LLC (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Jasper County Hospital (Rensselaer)	30	†	†	†	†	†	†
Jay County Hospital (Portland)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kentuckiana Medical Center LLC (Clarksville)	881	0	1.233	0.000	0.291	-- , 2.992	Same
Monroe Hospital (Bloomington)	155	0	0.295	---	---	---	---
Orthopaedic Hospital At Parkview North LLC (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Parkview Huntington Hospital (Huntington)	75	0	0.113	---	---	---	---
Parkview Noble Hospital (Kendallville)	28	†	†	†	†	†	†



Hospital Name	Central Line Days	Observed Infections	Expected Infections	CLABSI SIR	p-value	Confidence Interval**	National Comparison
Parkview Whitley Hospital (Columbia City)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Rehabilitation Hospital Of Fort Wayne General Partnership (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Joseph's Regional Medical Center (Plymouth)	114	0	0.171	---	---	---	---
St. Mary's Warrick Hospital Inc (Boonville)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
The Orthopaedic Hospital Of Lutheran Health Network (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Unity Medical And Surgical Hospital (Mishawaka)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Hospital Bedsize 51-100</b>							
Bluffton Regional Medical Center (Bluffton)	65	0	0.098	---	---	---	---
Daviess Community Hospital (Washington)	35	†	†	†	†	†	†
Dearborn County Hospital (Lawrenceburg)	1777	1	2.666	0.375	0.255	0.009, 2.090	Same
Franciscan Physicians Hospital LLC (Munster)	465	1	0.698	---	---	---	---
Franciscan St. Elizabeth Health (Lafayette-Central)	502	0	0.954	---	---	---	---
Franciscan St. Francis Health (Mooreville)	239	0	0.359	---	---	---	---
Hancock Regional Hospital (Greenfield)	282	0	0.423	---	---	---	---
Healthsouth Deaconess Rehabilitation Hospital (Evansville)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Henry County Memorial Hospital (New Castle)	271	0	0.407	---	---	---	---
Indiana University Health Morgan Hospital Inc (Martinsville)	180	0	0.270	---	---	---	---
Indiana University Health Starke Hospital (Knox)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
King's Daughters' Health (Madison)	266	0	0.399	---	---	---	---
Kosciusko Community Hospital (Warsaw)	216	0	0.324	---	---	---	---
Major Hospital (Shelbyville)	299	0	0.449	---	---	---	---
Marion General Hospital (Marion)	512	0	0.768	---	---	---	---
Memorial Hospital (Logansport)	129	0	0.194	---	---	---	---
Rehabilitation Hospital Of Indiana Inc (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Schneck Medical Center (Seymour)	713	0	1.070	0.000	0.343	-- , 3.448	Same

Hospital Name	Central Line Days	Observed Infections	Expected Infections	CLABSI SIR	p-value	Confidence Interval**	National Comparison
Southern Indiana Rehabilitation Hospital (New Albany)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Catherine Regional Hospital (Charlestown)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
The Indiana Heart Hospital (Indianapolis)	2695	1	3.889	0.257	0.100	0.007, 1.433	Same
The Women's Hospital (Newburgh)	2416	0	5.032	0.000	0.006	-- , 0.733	Lower
Witham Health Services (Lebanon)	119	0	0.179	---	---	---	---
<b>Hospital Bedsize 101-200</b>							
Columbus Regional Hospital (Columbus)	1440	0	2.160	0.000	0.115	-- , 1.708	Same
Community Hospital Of Anderson And Madison County (Anderson)	1536	2	2.304	0.868	0.595	0.105, 3.136	Same
Community Hospital South (Indianapolis)	1308	1	1.962	0.510	0.416	0.013, 2.840	Same
Community Howard Regional Health Inc (Kokomo)	1382	0	2.073	0.000	0.126	-- , 1.779	Same
Dupont Hospital LLC (Fort Wayne)	1235	2	2.618	0.764	0.514	0.093, 2.760	Same
Fayette Regional Health System (Connersville)	198	0	0.297	---	---	---	---
Franciscan St. Elizabeth Health (Crawfordsville)	22	†	†	†	†	†	†
Franciscan St. Elizabeth Health (Lafayette- East)	3477	1	6.382	0.157	0.012	0.004, 0.873	Lower
Franciscan St. Margaret Health (Dyer)	1585	1	3.329	0.300	0.155	0.008, 1.674	Same
Good Samaritan Hospital (Vincennes)	674	0	1.011	0.000	0.364	-- , 3.649	Same
Hendricks Regional Health (Danville)	740	1	1.110	0.901	0.695	0.023, 5.019	Same
Indiana University Health Arnett Hospital (Lafayette)	1982	0	3.100	0.000	0.045	-- , 1.190	Lower
Indiana University Health Goshen Hospital (Goshen)	1128	0	1.692	0.000	0.184	-- , 2.180	Same
Indiana University Health North Hospital (Carmel)	2003	5	4.218	1.185	0.414	0.385, 2.766	Same
Indiana University Health West Hospital (Avon)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Johnson Memorial Hospital (Franklin)***	422	0	0.633	---	---	---	---
Memorial Hospital And Health Care Center (Jasper)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Riverview Hospital (Noblesville)	1153	3	2.008	1.494	0.326	0.308, 4.366	Same
St. Catherine Hospital Inc (East Chicago)	1281	0	1.922	0.000	0.146	-- , 1.919	Same
St. Joseph Hospital (Fort Wayne)	2888	9	10.235	0.879	0.429	0.402, 1.669	Same
St. Joseph Hospital & Health Center Inc (Kokomo)	1516	1	2.274	0.440	0.337	0.011, 2.450	Same

Hospital Name	Central Line Days	Observed Infections	Expected Infections	CLABSI SIR	p-value	Confidence Interval**	National Comparison
St. Mary Medical Center Inc (Hobart)	1671	3	2.507	1.197	0.458	0.247, 3.497	Same
St. Vincent Anderson Regional Hospital Inc (Anderson)	1275	0	1.913	0.000	0.148	-- , 1.928	Same
St. Vincent Carmel Hospital Inc (Carmel)	899	3	1.385	2.166	0.163	0.447, 6.330	Same
St. Vincent Heart Center Of Indiana LLC (Indianapolis)	4371	2	6.557	0.305	0.041	0.037, 1.102	Lower
Westview Hospital (Indianapolis)	1669	0	2.504	0.000	0.082	-- , 1.473	Same
<b>Hospital Bedsize 201-300</b>							
Clark Memorial Hospital (Jeffersonville)	1977	1	2.966	0.337	0.204	0.009, 1.879	Same
Community Hospital East (Indianapolis)	1900	4	2.850	1.404	0.319	0.382, 3.594	Same
Community Hospital North (Indianapolis)	5447	12	11.205	1.071	0.445	0.553, 1.871	Same
Elkhart General Hospital (Elkhart)	3183	1	6.774	0.148	0.009	0.004, 0.823	Lower
Floyd Memorial Hospital And Health Services (New Albany)	4887	1	7.100	0.141	0.007	0.004, 0.785	Lower
Franciscan St. Anthony Health (Crown Point)	1806	4	3.139	1.274	0.384	0.347, 3.263	Same
Franciscan St. Margaret Health (Hammond)	2876	1	6.040	0.166	0.017	0.004, 0.922	Lower
Indiana University Health Bloomington Hospital (Bloomington)	1863	0	2.787	0.000	0.062	-- , 1.324	Same
Indiana University Health La Porte Hospital (La Porte)	811	0	1.217	0.000	0.296	-- , 3.031	Same
Reid Hospital & Health Care Services (Richmond)	941	0	1.412	0.000	0.244	-- , 2.613	Same
St. Joseph Regional Medical Center (Mishawaka)	3087	0	6.268	0.000	0.002	-- , 0.589	Lower
Terre Haute Regional Hospital (Terre Haute)	1539	2	2.309	0.866	0.594	0.105, 3.129	Same
William N Wishard Memorial Hospital (Indianapolis)	4807	18	14.861	1.211	0.239	0.717, 1.914	Same
<b>Hospital Bedsize &gt; 300</b>							
Community Hospital (Munster)	5517	6	9.344	0.642	0.177	0.236, 1.398	Same
Deaconess Hospital Inc (Evansville)	9441	3	18.863	0.159	0.000	0.033, 0.465	Lower
Franciscan St. Anthony Health (Michigan City)	983	0	1.475	0.000	0.229	-- , 2.501	Same
Franciscan St. Francis Health (Indianapolis)	10202	4	16.529	0.242	0.000	0.066, 0.620	Lower
Indiana University Health (Methodist, Riley, University) (Indianapolis)	50017	89	110.463	0.806	0.020	0.647, 0.991	Lower

Hospital Name	Central Line Days	Observed Infections	Expected Infections	CLABSI SIR	p-value	Confidence Interval**	National Comparison
<b>Indiana University Health Ball Memorial Hospital (Muncie)</b>	5688	1	10.425	0.096	0.000	0.002, 0.534	Lower
<b>Lutheran Hospital Of Indiana (Fort Wayne)</b>	11543	12	19.794	0.606	0.043	0.313, 1.059	Lower
<b>Memorial Hospital Of South Bend (South Bend)</b>	5071	5	9.382	0.533	0.094	0.173, 1.244	Same
<b>Methodist Hospitals Inc (Gary)</b>	5279	16	8.354	1.915	0.012	1.094, 3.110	Higher
<b>Parkview Regional Medical Center (Fort Wayne)</b>	10326	9	24.260	0.371	0.000	0.170, 0.704	Lower
<b>Porter Regional Hospital (Valparaiso)</b>	5466	2	8.368	0.239	0.010	0.029, 0.863	Lower
<b>St. Mary's Medical Center Of Evansville Inc (Evansville)</b>	5104	2	10.966	0.182	0.001	0.022, 0.659	Lower
<b>St. Vincent Hospital &amp; Health Services (Indianapolis)</b>	26108	41	59.411	0.690	0.008	0.495, 0.936	Lower
<b>Union Hospital Inc (Terre Haute)</b>	3416	5	5.313	0.941	0.561	0.306, 2.196	Same

CLABSI calculations use a 2006-2008 NHSN baseline period. Data contained in this report were last generated on September 26, 2013.

\* Includes all adult, pediatric, and neonatal ICUs. Excludes LTAC ICU locations.

\*\* Lower boundary of 95% Confidence Interval only calculated if Observed Infections > 0.

\*\*\* Data has not been verified by the hospital.

† Data suppressed for hospitals reporting < 50 central line days in order to protect patient confidentiality.

--- SIR and corresponding statistics only calculated if Expected Infections ≥ 1.

n/a Not applicable. Hospital does not have ICU and was not required to report.

## CLABSI Rates for Long Term Acute Care ICUs

The following table shows CLABSI rates and corresponding statistics for LTAC ICU locations. As stated previously, the SIR is not yet available for LTAC ICU locations because national baselines have not been established, so CLABSI rates are presented instead. The individual rates are per 1,000 central line days and compared to the national average CLABSI rate. Hospitals that do not have an ICU are not required to report. Of the Indiana LTAC hospitals, two had locations that met the NHSN definition for an ICU. Both facilities had CLABSI rates that were statistically similar to the national data.

**Table 9: CLABSI rates for LTAC ICU locations, January 1, 2012- December 31, 2012**

Hospital name	Central Line days	Observed Infections	CLABSI Rate*	National Rate*	p-value	National Comparison
<b>Hospital Bedsize 26-50</b>						
Central Indiana Amg Specialty Hospital LLC (Muncie)	n/a	n/a	n/a	n/a	n/a	n/a
Kindred Hospital Northern Indiana (Mishawaka)	568	0	0.000	2.000	0.329	Same
Rivercrest Specialty Hospital (Mishawaka)	n/a	n/a	n/a	n/a	n/a	n/a
Select Specialty Hospital (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a
Select Specialty Hospital (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Seton Specialty Hospital (Lafayette)	n/a	n/a	n/a	n/a	n/a	n/a
Vibra Hospital Of Fort Wayne (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a
Vibra Hospital Of Northwestern Indiana (Crown Point)	n/a	n/a	n/a	n/a	n/a	n/a
<b>Hospital Bedsize 51-100</b>						
Kindred Hospital Indianapolis (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a
Kindred Hospital Indianapolis South (Greenwood)	1448	2	1.381	2.000	0.461	Same
Kindred Hospital Northwest Indiana (Hammond)	n/a	n/a	n/a	n/a	n/a	n/a
Regency Hospital Of Northwest Indiana (East Chicago)	n/a	n/a	n/a	n/a	n/a	n/a
Select Specialty Hospital (Evansville)	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Seton Specialty Hospital (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a

CLABSI calculations for LTAC locations use a 2011 NHSN baseline period. Data contained in this report were last generated on September 26, 2013.

\* Rate is per 1,000 central line days.

n/a Not applicable. Hospital does not have ICU and is not required to report.

## CAUTI SIRs

Table 10 shows hospital-specific CAUTI data for ICU locations. Hospitals are grouped according to similar bedsize and then listed alphabetically. The data includes adult and pediatric ICU locations only; reporting from neonatal ICUs is not required. All LTAC ICU locations are excluded because national SIRs and corresponding statistics are not available at this time. Data for LTAC ICU locations will be presented as rates in Table 11. Each hospital's SIR is compared to the national baseline data and color-coded to indicate whether infections were significantly higher than, significantly lower than, or the same as the national data. Hospitals without an ICU were not required to report and are indicated in the table. In addition, hospitals reporting fewer than 50 catheter days have their data suppressed in order to protect patient confidentiality.

Of the 90 hospitals that reported CAUTI data, 57 hospitals had sufficient data to generate a SIR and be publicly reported. Five hospitals reported significantly fewer infections than predicted, while five other hospitals reported significantly more infections. Forty-seven hospitals reported data similar to the national average.

**Table 10: Hospital-Specific CAUTI Data for All ICU\* Locations, January 1, 2012- December 31, 2012**

Hospital Name	Catheter Days	Observed Infections	Expected Infections	CAUTI SIR	p-value	Confidence Interval**	National Comparison
<b>Hospital Bedsize ≤ 25</b>							
<b>Cameron Memorial Community Hospital Inc (Angola)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Community Hospital Of Bremen Inc (Bremen)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Decatur County Memorial Hospital (Greensburg)</b>	13	†	†	†	†	†	†
<b>Doctors Neuromedical Hospital &amp; Brain Institute (Bremen)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Dukes Memorial Hospital (Peru)</b>	255	1	0.332	---	---	---	---
<b>Franciscan St. Francis Health (Carmel)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Gibson General Hospital (Princeton)***</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Greene County General Hospital (Linton)</b>	128	0	0.256	---	---	---	---
<b>Harrison County Hospital (Corydon)</b>	251	0	0.326	---	---	---	---
<b>Hind General Hospital LLC (Hobart)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Indiana University Health Bedford Hospital (Bedford)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Indiana University Health Blackford Hospital (Hartford City)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Indiana University Health Paoli Hospital (Paoli)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Indiana University Health Tipton Hospital Inc (Tipton)</b>	183	0	0.238	---	---	---	---
<b>Indiana University Health White Memorial Hospital (Monticello)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Margaret Mary Community Hospital Inc (Batesville)</b>	261	0	0.339	---	---	---	---
<b>Parkview LaGrange Hospital (LaGrange)</b>	112	0	0.146	---	---	---	---
<b>Perry County Memorial Hospital (Tell City)</b>	93	0	0.121	---	---	---	---
<b>Physicians' Medical Center LLC (New Albany)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Pinnacle Hospital (Crown Point)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Pulaski Memorial Hospital (Winamac)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Putnam County Hospital (Greencastle)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Rush Memorial Hospital (Rushville)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Hospital Name	Catheter Days	Observed Infections	Expected Infections	CAUTI SIR	p-value	Confidence Interval**	National Comparison
Scott Memorial Hospital (Scottsburg)***	193	0	0.251	---	---	---	---
St. Vincent Clay Hospital Inc (Brazil)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Dunn Hospital Inc (Bedford)	214	0	0.257	---	---	---	---
St. Vincent Frankfort Hospital Inc (Frankfort)***	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Jennings Hospital Inc (North Vernon)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Mercy Hospital (Elwood)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Randolph Hospital Inc (Winchester)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Salem Hospital Inc (Salem)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Williamsport Hospital Inc (Williamsport)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sullivan County Community Hospital (Sullivan)	208	0	0.270	---	---	---	---
The Heart Hospital At Deaconess Gateway LLC (Newburgh)	417	1	0.542	---	---	---	---
Union Hospital Clinton (Clinton)	240	1	0.312	---	---	---	---
Wabash County Hospital (Wabash)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Woodlawn Hospital (Rochester)	273	0	0.355	---	---	---	---
<b>Hospital Bedsize 26-50</b>							
Adams Memorial Hospital (Decatur)	396	0	0.515	---	---	---	---
Community Howard Specialty Hospital (Kokomo)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Dekalb Health (Auburn)	364	0	0.473	---	---	---	---
Indiana Orthopaedic Hospital LLC (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Jasper County Hospital (Rensselaer)	320	0	0.416	---	---	---	---
Jay County Hospital (Portland)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kentuckiana Medical Center LLC (Clarksville)	1190	0	2.023	0.000	0.132	-- , 1.823	Same
Monroe Hospital (Bloomington)	388	0	0.776	---	---	---	---
Orthopaedic Hospital At Parkview North LLC (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Parkview Huntington Hospital (Huntington)	265	0	0.345	---	---	---	---
Parkview Noble Hospital (Kendallville)	227	0	0.295	---	---	---	---



Hospital Name	Catheter Days	Observed Infections	Expected Infections	CAUTI SIR	p-value	Confidence Interval**	National Comparison
Parkview Whitley Hospital (Columbia City)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Rehabilitation Hospital Of Fort Wayne General Partnership (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Joseph's Regional Medical Center (Plymouth)	398	1	0.517	---	---	---	---
St. Mary's Warrick Hospital Inc (Boonville)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
The Orthopaedic Hospital Of Lutheran Health Network (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Unity Medical And Surgical Hospital (Mishawaka)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Hospital Bedsize 51-100</b>							
Bluffton Regional Medical Center (Bluffton)	375	0	0.488	---	---	---	---
Daviess Community Hospital (Washington)	52	1	0.068	---	---	---	---
Dearborn County Hospital (Lawrenceburg)	1629	1	2.118	0.472	0.375	0.012, 2.631	Same
Franciscan Physicians Hospital LLC (Munster)	274	1	0.356	---	---	---	---
Franciscan St. Elizabeth Health (Lafayette- Central)	966	0	1.932	0.000	0.145	-- , 1.909	Same
Franciscan St. Francis Health (Mooreville)	498	0	0.647	---	---	---	---
Hancock Regional Hospital (Greenfield)	387	0	0.464	---	---	---	---
Healthsouth Deaconess Rehabilitation Hospital (Evansville)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Henry County Memorial Hospital (New Castle)	864	0	1.123	0.000	0.325	-- , 3.285	Same
Indiana University Health Morgan Hospital Inc (Martinsville)	534	0	0.694	---	---	---	---
Indiana University Health Starke Hospital (Knox)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
King's Daughters' Health (Madison)	1125	2	1.463	1.367	0.430	0.166, 4.938	Same
Kosciusko Community Hospital (Warsaw)	585	0	0.761	---	---	---	---
Major Hospital (Shelbyville)	699	0	0.909	---	---	---	---
Marion General Hospital (Marion)	2024	2	2.429	0.823	0.562	0.100, 2.974	Same
Memorial Hospital (Logansport)	534	0	0.694	---	---	---	---
Rehabilitation Hospital Of Indiana Inc (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Schneck Medical Center (Seymour)	995	0	1.294	0.000	0.274	-- , 2.851	Same

Hospital Name	Catheter Days	Observed Infections	Expected Infections	CAUTI SIR	p-value	Confidence Interval**	National Comparison
<b>Southern Indiana Rehabilitation Hospital (New Albany)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>St. Catherine Regional Hospital (Charlestown)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>The Indiana Heart Hospital (Indianapolis)</b>	1865	4	2.867	1.395	0.323	0.380, 3.572	Same
<b>The Women's Hospital (Newburgh)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Witham Health Services (Lebanon)</b>	324	0	0.421	---	---	---	---
<b>Hospital Bedsize 101-200</b>							
<b>Columbus Regional Hospital (Columbus)</b>	1869	1	2.243	0.446	0.344	0.011, 2.484	Same
<b>Community Hospital Of Anderson And Madison County (Anderson)</b>	2021	1	2.627	0.381	0.262	0.010, 2.121	Same
<b>Community Hospital South (Indianapolis)</b>	1525	1	1.983	0.504	0.411	0.013, 2.810	Same
<b>Community Howard Regional Health Inc (Kokomo)</b>	1625	2	2.113	0.947	0.646	0.115, 3.419	Same
<b>Dupont Hospital LLC (Fort Wayne)</b>	679	3	0.883	---	---	---	---
<b>Fayette Regional Health System (Connersville)</b>	934	1	1.214	0.824	0.658	0.021, 4.589	Same
<b>Franciscan St. Elizabeth Health (Crawfordsville)</b>	149	0	0.298	---	---	---	---
<b>Franciscan St. Elizabeth Health (Lafayette- East)</b>	2946	8	4.628	1.729	0.098	0.746, 3.406	Same
<b>Franciscan St. Margaret Health (Dyer)</b>	2134	2	4.908	0.407	0.133	0.049, 1.472	Same
<b>Good Samaritan Hospital (Vincennes)</b>	1495	0	1.944	0.000	0.143	-- , 1.898	Same
<b>Hendricks Regional Health (Danville)</b>	1103	1	1.434	0.697	0.580	0.018, 3.885	Same
<b>Indiana University Health Arnett Hospital (Lafayette)</b>	1866	3	2.426	1.237	0.437	0.255, 3.614	Same
<b>Indiana University Health Goshen Hospital (Goshen)</b>	1491	1	1.938	0.516	0.423	0.013, 2.875	Same
<b>Indiana University Health North Hospital (Carmel)</b>	1307	1	1.902	0.526	0.433	0.013, 2.929	Same
<b>Indiana University Health West Hospital (Avon)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Johnson Memorial Hospital (Franklin)***</b>	488	0	0.634	---	---	---	---
<b>Memorial Hospital And Health Care Center (Jasper)</b>	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Riverview Hospital (Noblesville)</b>	1464	0	2.330	0.000	0.097	-- , 1.583	Same
<b>St. Catherine Hospital Inc (East Chicago)</b>	1894	0	2.273	0.000	0.103	-- , 1.623	Same
<b>St. Joseph Hospital (Fort Wayne)</b>	2392	5	6.535	0.765	0.364	0.248, 1.786	Same

Hospital Name	Catheter Days	Observed Infections	Expected Infections	CAUTI SIR	p-value	Confidence Interval**	National Comparison
St. Joseph Hospital & Health Center Inc (Kokomo)	1807	0	2.349	0.000	0.096	-- , 1.570	Same
St. Mary Medical Center Inc (Hobart)	2375	0	3.088	0.000	0.046	-- , 1.195	Lower
St. Vincent Anderson Regional Hospital Inc (Anderson)	1438	1	1.869	0.535	0.443	0.014, 2.981	Same
St. Vincent Carmel Hospital Inc (Carmel)	730	1	0.949	---	---	---	---
St. Vincent Heart Center Of Indiana LLC (Indianapolis)	7523	19	9.028	2.105	0.003	1.266, 3.287	Higher
Westview Hospital (Indianapolis)	901	0	1.171	0.000	0.310	-- , 3.150	Same
<b>Hospital Bedsize 201-300</b>							
Clark Memorial Hospital (Jeffersonville)	3200	0	4.160	0.000	0.016	-- , 0.887	Lower
Community Hospital East (Indianapolis)	2288	4	2.974	1.345	0.347	0.366, 3.444	Same
Community Hospital North (Indianapolis)	2753	3	3.304	0.908	0.580	0.187, 2.654	Same
Elkhart General Hospital (Elkhart)	3291	8	7.759	1.031	0.513	0.445, 2.032	Same
Floyd Memorial Hospital And Health Services (New Albany)	5321	7	7.562	0.926	0.516	0.372, 1.907	Same
Franciscan St. Anthony Health (Crown Point)	2486	4	2.983	1.341	0.349	0.365, 3.433	Same
Franciscan St. Margaret Health (Hammond)	3432	3	7.894	0.380	0.046	0.078, 1.111	Lower
Indiana University Health Bloomington Hospital (Bloomington)	2447	5	2.936	1.703	0.174	0.553, 3.974	Same
Indiana University Health La Porte Hospital (La Porte)	1418	3	1.843	1.628	0.281	0.336, 4.757	Same
Reid Hospital & Health Care Services (Richmond)	3405	0	4.086	0.000	0.017	-- , 0.903	Lower
St. Joseph Regional Medical Center (Mishawaka)	3139	4	6.809	0.587	0.191	0.160, 1.504	Same
Terre Haute Regional Hospital (Terre Haute)	1591	1	1.909	0.524	0.431	0.013, 2.919	Same
William N Wishard Memorial Hospital (Indianapolis)	7005	56	20.284	2.761	0.000	2.085, 3.585	Higher
<b>Hospital Bedsize &gt; 300</b>							
Community Hospital (Munster)	7363	16	14.581	1.097	0.389	0.627, 1.782	Same
Deaconess Hospital Inc (Evansville)	16053	12	36.711	0.327	0.000	0.169, 0.571	Lower
Franciscan St. Anthony Health (Michigan City)	1520	0	1.976	0.000	0.139	-- , 1.867	Same
Franciscan St. Francis Health (Indianapolis)	9548	9	13.911	0.647	0.114	0.296, 1.228	Same

Hospital Name	Catheter Days	Observed Infections	Expected Infections	CAUTI SIR	p-value	Confidence Interval**	National Comparison
<b>Indiana University Health (Methodist, Riley, University) (Indianapolis)</b>	38825	171	102.144	1.674	0.000	1.433, 1.945	Higher
<b>Indiana University Health Ball Memorial Hospital (Muncie)</b>	6275	9	13.006	0.692	0.165	0.316, 1.314	Same
<b>Lutheran Hospital Of Indiana (Fort Wayne)</b>	13944	32	21.774	1.470	0.024	1.005, 2.075	Higher
<b>Memorial Hospital Of South Bend (South Bend)</b>	4081	8	5.372	1.489	0.175	0.643, 2.934	Same
<b>Methodist Hospitals Inc (Gary)</b>	6838	18	12.887	1.397	0.103	0.827, 2.208	Same
<b>Parkview Regional Medical Center (Fort Wayne)</b>	12358	26	29.397	0.884	0.304	0.578, 1.296	Same
<b>Porter Regional Hospital (Valparaiso)</b>	4644	9	5.656	1.591	0.119	0.728, 3.021	Same
<b>St. Mary's Medical Center Of Evansville Inc (Evansville)</b>	5405	6	10.451	0.574	0.104	0.211, 1.250	Same
<b>St. Vincent Hospital &amp; Health Services (Indianapolis)</b>	18268	57	44.231	1.289	0.037	0.976, 1.670	Higher
<b>Union Hospital Inc (Terre Haute)</b>	6422	5	7.706	0.649	0.220	0.211, 1.514	Same

CAUTI calculations use a 2009 NHSN baseline period. Data contained in this report were last generated on September 26, 2013.

\* Includes all adult and pediatric ICUs. Excludes LTAC ICU locations and NICU locations.

\*\* Lower boundary of 95% Confidence Interval only calculated if Observed Infections > 0.

\*\*\* Data has not been verified by the hospital.

† Data suppressed for hospitals reporting < 50 catheter days in order to protect patient confidentiality.

--- SIR and corresponding statistics only calculated if Expected Infections ≥ 1.

n/a Not applicable. Hospital does not have ICU and was not required to report.

## CAUTI Rates for Long Term Acute Care ICUs

The following table shows CAUTI rates and corresponding statistics for LTAC ICU locations. As stated previously, the SIR is not yet available for LTAC ICU locations because national baselines have not been established, so CAUTI rates are presented instead. The individual rates are per 1,000 catheter days and compared to the national average CAUTI rate. Hospitals that do not have an ICU are not required to report. Of the Indiana LTAC hospitals, two had locations that met the NHSN definition for an ICU. Both facilities had CAUTI rates that were statistically similar to the national data.

**Table 11: CAUTI rates for LTAC ICU locations, January 1, 2012- December 31, 2012**

Hospital name	Catheter days	Observed Infections	CAUTI Rate*	National Rate*	p-value	National Comparison
<b>Hospital Bedsize 26-50</b>						
Central Indiana Amg Specialty Hospital LLC (Muncie)	n/a	n/a	n/a	n/a	n/a	n/a
Kindred Hospital Northern Indiana (Mishawaka)	489	2	4.090	3.600	0.519	Same
Rivercrest Specialty Hospital (Mishawaka)	n/a	n/a	n/a	n/a	n/a	n/a
Select Specialty Hospital (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a
Select Specialty Hospital (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Seton Specialty Hospital (Lafayette)	n/a	n/a	n/a	n/a	n/a	n/a
Vibra Hospital Of Fort Wayne (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a
Vibra Hospital Of Northwestern Indiana (Crown Point)	n/a	n/a	n/a	n/a	n/a	n/a
<b>Hospital Bedsize 51-100</b>						
Kindred Hospital Indianapolis (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a
Kindred Hospital Indianapolis South (Greenwood)	1227	2	1.630	3.600	0.189	Same
Kindred Hospital Northwest Indiana (Hammond)	n/a	n/a	n/a	n/a	n/a	n/a
Regency Hospital Of Northwest Indiana (East Chicago)	n/a	n/a	n/a	n/a	n/a	n/a
Select Specialty Hospital (Evansville)	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Seton Specialty Hospital (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a

CAUTI calculations for LTAC locations use a 2011 NHSN baseline period. Data contained in this report were last generated on September 26, 2013.

\* Rate is per 1,000 catheter days.

n/a Not applicable. Hospital does not have ICU and is not required to report.

### SSI SIRS for Colon Surgery

Table 12 shows hospital-specific SSI data for colon surgeries performed in 2012. Each hospital's SIR is compared to the national data and color-coded depending on whether the hospital's infections were significantly higher than, significantly lower than, or the same as the national data. Hospitals reporting fewer than 20 procedures have their data suppressed in order to protect patient confidentiality.

Of the 113 hospitals that reported data for colon surgeries, 51 had sufficient data to calculate a SIR and be publicly reported. Of those, three hospitals reported significantly fewer infections than predicted while three other hospitals reported significantly more infections than predicted. The remaining 45 hospitals reported data that was similar to the national average.

**Table 12: Hospital-Specific SSI Data for Colon Surgeries, January 1, 2012- December 31, 2012**

Hospital Name	Number of Procedures	Observed Infections	Expected Infections	SSI SIR	p-value	Confidence Interval*	National Comparison
<b>Hospital Bedsize ≤ 25</b>							
Cameron Memorial Community Hospital Inc (Angola)	26	0	0.712	---	---	---	---
Community Hospital Of Bremen Inc (Bremen)	10	†	†	†	†	†	†
Decatur County Memorial Hospital (Greensburg)	7	†	†	†	†	†	†
Doctors Neuromedical Hospital & Brain Institute (Bremen)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Dukes Memorial Hospital (Peru)	4	†	†	†	†	†	†
Franciscan St. Francis Health (Carmel)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Gibson General Hospital (Princeton)**	1	†	†	†	†	†	†
Greene County General Hospital (Linton)	2	†	†	†	†	†	†
Harrison County Hospital (Corydon)	5	†	†	†	†	†	†
Hind General Hospital LLC (Hobart)	1	†	†	†	†-	†	†
Indiana University Health Bedford Hospital (Bedford)	22	0	0.664	---	---	---	---
Indiana University Health Blackford Hospital (Hartford City)	8	†	†	†	†	†	†
Indiana University Health Paoli Hospital (Paoli)	0	†	†	†	†	†	†
Indiana University Health Tipton Hospital Inc (Tipton)	9	†	†	†	†	†	†
Indiana University Health White Memorial Hospital (Monticello)	1	†	†	†	†	†	†
Margaret Mary Community Hospital Inc (Batesville)	17	†	†	†	†	†	†
Parkview LaGrange Hospital (LaGrange)	8	†	†	†	†	†	†
Perry County Memorial Hospital (Tell City)	5	†	†	†	†	†	†
Physicians' Medical Center LLC (New Albany)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pinnacle Hospital (Crown Point)	1	†	†	†	†	†	†
Pulaski Memorial Hospital (Winamac)	10	†	†	†	†	†	†
Putnam County Hospital (Greencastle)	5	†	†	†	†	†	†
Rush Memorial Hospital (Rushville)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Scott Memorial Hospital (Scottsburg)**	1	†	†	†	†	†	†

Hospital Name	Number of Procedures	Observed Infections	Expected Infections	SSI SIR	p-value	Confidence Interval*	National Comparison
St. Vincent Clay Hospital Inc (Brazil)	3	†	†	†	†	†	†
St. Vincent Dunn Hospital Inc (Bedford)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Frankfort Hospital Inc (Frankfort)**	0	†	†	†	†	†	†
St. Vincent Jennings Hospital Inc (North Vernon)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Mercy Hospital (Elwood)	0	†	†	†	†	†	†
St. Vincent Randolph Hospital Inc (Winchester)	0	†	†	†	†	†	†
St. Vincent Salem Hospital Inc (Salem)	9	†	†	†	†	†	†
St. Vincent Williamsport Hospital Inc (Williamsport)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sullivan County Community Hospital (Sullivan)	12	†	†	†	†	†	†
The Heart Hospital At Deaconess Gateway LLC (Newburgh)	0	†	†	†	†	†	†
Union Hospital Clinton (Clinton)	10	†	†	†	†	†	†
Wabash County Hospital (Wabash)	5	†	†	†	†	†	†
Woodlawn Hospital (Rochester)	7	†	†	†	†	†	†
<b>Hospital Bedsize 26-50</b>							
Adams Memorial Hospital (Decatur)	24	3	0.762	---	---	---	---
Central Indiana Amg Specialty Hospital LLC (Muncie)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Community Howard Specialty Hospital (Kokomo)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Dekalb Health (Auburn)	30	1	0.892	---	---	---	---
Indiana Orthopaedic Hospital LLC (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Jasper County Hospital (Rensselaer)	4	†	†	†	†	†	†
Jay County Hospital (Portland)	21	0	0.619	---	---	---	---
Kentuckiana Medical Center LLC (Clarksville)	1	†	†	†	†	†	†
Kindred Hospital Northern Indiana (Mishawaka)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Monroe Hospital (Bloomington)	32	0	0.963	---	---	---	---
Orthopaedic Hospital At Parkview North LLC (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Parkview Huntington Hospital (Huntington)	4	†	†	†	†	†	†



Hospital Name	Number of Procedures	Observed Infections	Expected Infections	SSI SIR	p-value	Confidence Interval*	National Comparison
Parkview Noble Hospital (Kendallville)	5	†	†	†	†	†	†
Parkview Whitley Hospital (Columbia City)	15	†	†	†	†	†	†
Rehabilitation Hospital Of Fort Wayne General Partnership (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Rivercrest Specialty Hospital (Mishawaka)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Select Specialty Hospital (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Select Specialty Hospital (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Joseph's Regional Medical Center (Plymouth)	9	†	†	†	†	†	†
St. Mary's Warrick Hospital Inc (Boonville)	0	†	†	†	†	†	†
St. Vincent Seton Specialty Hospital (Lafayette)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
The Orthopaedic Hospital Of Lutheran Health Network (Fort Wayne)	0	†	†	†	†	†	†
Unity Medical And Surgical Hospital (Mishawaka)	1	†	†	†	†	†	†
Vibra Hospital Of Fort Wayne (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Vibra Hospital Of Northwestern Indiana (Crown Point)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Hospital Bedsize 51-100</b>							
Bluffton Regional Medical Center (Bluffton)	18	†	†	†	†	†	†
Daviess Community Hospital (Washington)	15	†	†	†	†	†	†
Dearborn County Hospital (Lawrenceburg)	31	1	1.036	0.965	0.723	0.024, 5.378	Same
Franciscan Physicians Hospital LLC (Munster)	31	2	0.941	---	---	---	---
Franciscan St. Elizabeth Health (Lafayette- Central)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Franciscan St. Francis Health (Mooreville)	80	3	2.732	1.098	0.514	0.226, 3.209	Same
Hancock Regional Hospital (Greenfield)	33	0	1.038	0.000	0.354	-- , 3.554	Same
Healthsouth Deaconess Rehabilitation Hospital (Evansville)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Henry County Memorial Hospital (New Castle)	22	0	0.696	---	---	---	---
Indiana University Health Morgan Hospital Inc (Martinsville)	1	†	†	†	†	†	†
Indiana University Health Starke Hospital (Knox)	5	†	†	†	†	†	†
Kindred Hospital Indianapolis (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Hospital Name	Number of Procedures	Observed Infections	Expected Infections	SSI SIR	p-value	Confidence Interval*	National Comparison
Kindred Hospital Indianapolis South (Greenwood)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kindred Hospital Northwest Indiana (Hammond)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
King's Daughters' Health (Madison)	48	2	1.417	1.411	0.414	0.171, 5.099	Same
Kosciusko Community Hospital (Warsaw)	24	0	0.727	---	---	---	---
Major Hospital (Shelbyville)	42	2	1.382	1.447	0.402	0.175, 5.228	Same
Marion General Hospital (Marion)	66	1	2.030	0.493	0.398	0.012, 2.745	Same
Memorial Hospital (Logansport)	12	†	†	†	†	†	†
Regency Hospital Of Northwest Indiana (East Chicago)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Rehabilitation Hospital Of Indiana Inc (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Schneck Medical Center (Seymour)	29	2	0.961	---	---	---	---
Select Specialty Hospital (Evansville)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Indiana Rehabilitation Hospital (New Albany)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Catherine Regional Hospital (Charlestown)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Seton Specialty Hospital (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
The Indiana Heart Hospital (Indianapolis)	0	†	†	†	†	†	†
The Women's Hospital (Newburgh)	0	†	†	†	†	†	†
Witham Health Services (Lebanon)	9	†	†	†	†	†	†
<b>Hospital Bedsize 101-200</b>							
Columbus Regional Hospital (Columbus)	71	1	2.194	0.456	0.356	0.012, 2.539	Same
Community Hospital Of Anderson And Madison County (Anderson)	64	3	2.156	1.391	0.366	0.287, 4.066	Same
Community Hospital South (Indianapolis)	64	2	2.080	0.962	0.655	0.116, 3.473	Same
Community Howard Regional Health Inc (Kokomo)	31	0	1.005	0.000	0.366	-- , 3.671	Same
Dupont Hospital LLC (Fort Wayne)	31	0	0.920	---	---	---	---
Fayette Regional Health System (Connersville)	7	†	†	†	†	†	†
Franciscan St. Elizabeth Health (Crawfordsville)	5	†	†	†	†	†	†
Franciscan St. Elizabeth Health (Lafayette- East)	121	2	3.727	0.537	0.281	0.065, 1.938	Same
Franciscan St. Margaret Health (Dyer)	73	5	2.250	2.222	0.078	0.722, 5.186	Same

Hospital Name	Number of Procedures	Observed Infections	Expected Infections	SSI SIR	p-value	Confidence Interval*	National Comparison
Good Samaritan Hospital (Vincennes)	85	2	2.819	0.709	0.465	0.086, 2.563	Same
Hendricks Regional Health (Danville)	90	0	2.719	0.000	0.066	-- , 1.357	Same
Indiana University Health Arnett Hospital (Lafayette)	128	3	4.051	0.741	0.424	0.153, 2.164	Same
Indiana University Health Goshen Hospital (Goshen)	88	14	2.940	4.762	0.000	2.603, 7.990	Higher
Indiana University Health North Hospital (Carmel)	103	4	3.348	1.195	0.430	0.326, 3.059	Same
Indiana University Health West Hospital (Avon)	56	3	1.797	1.669	0.269	0.344, 4.879	Same
Johnson Memorial Hospital (Franklin)**	21	0	0.687	---	---	---	---
Memorial Hospital And Health Care Center (Jasper)	59	1	1.793	0.558	0.465	0.014, 3.107	Same
Riverview Hospital (Noblesville)	53	2	1.682	1.189	0.501	0.144, 4.295	Same
St. Catherine Hospital Inc (East Chicago)	29	1	0.942	---	---	---	---
St. Joseph Hospital (Fort Wayne)	6	†	†	†	†	†	†
St. Joseph Hospital & Health Center Inc (Kokomo)	42	2	1.452	1.377	0.426	0.167, 4.976	Same
St. Mary Medical Center Inc (Hobart)	60	0	1.808	0.000	0.164	-- , 2.040	Same
St. Vincent Anderson Regional Hospital Inc (Anderson)	42	2	1.322	1.513	0.381	0.183, 5.465	Same
St. Vincent Carmel Hospital Inc (Carmel)	109	0	3.373	0.000	0.034	-- , 1.094	Lower
St. Vincent Heart Center Of Indiana LLC (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Westview Hospital (Indianapolis)	3	†	†	†	†	†	†
<b>Hospital Bedsize 201-300</b>							
Clark Memorial Hospital (Jeffersonville)	71	1	2.206	0.453	0.353	0.011, 2.526	Same
Community Hospital East (Indianapolis)	55	1	1.880	0.532	0.440	0.013, 2.964	Same
Community Hospital North (Indianapolis)	270	5	8.984	0.557	0.117	0.181, 1.299	Same
Elkhart General Hospital (Elkhart)	98	6	2.986	2.009	0.083	0.737, 4.374	Same
Floyd Memorial Hospital And Health Services (New Albany)	167	5	5.536	0.903	0.523	0.293, 2.108	Same
Franciscan St. Anthony Health (Crown Point)	114	3	3.658	0.820	0.503	0.169, 2.397	Same
Franciscan St. Margaret Health (Hammond)	67	1	2.287	0.437	0.334	0.011, 2.436	Same
Indiana University Health Bloomington Hospital (Bloomington)	174	9	5.465	1.647	0.103	0.753, 3.126	Same

Hospital Name	Number of Procedures	Observed Infections	Expected Infections	SSI SIR	p-value	Confidence Interval*	National Comparison
Indiana University Health La Porte Hospital (La Porte)	44	0	1.454	0.000	0.234	-- , 2.537	Same
Reid Hospital & Health Care Services (Richmond)	61	0	2.023	0.000	0.132	-- , 1.823	Same
St. Joseph Regional Medical Center (Mishawaka)	108	7	3.332	2.101	0.053	0.845, 4.329	Same
Terre Haute Regional Hospital (Terre Haute)	32	1	1.040	0.962	0.721	0.024, 5.357	Same
William N Wishard Memorial Hospital (Indianapolis)	62	1	2.379	0.420	0.313	0.011, 2.342	Same
<b>Hospital Bedsize &gt; 300</b>							
Community Hospital (Munster)	203	6	6.035	0.994	0.601	0.365, 2.164	Same
Deaconess Hospital Inc (Evansville)	265	8	9.249	0.865	0.423	0.373, 1.704	Same
Franciscan St. Anthony Health (Michigan City)	71	0	2.197	0.000	0.111	-- , 1.679	Same
Franciscan St. Francis Health (Indianapolis)	349	13	11.443	1.136	0.361	0.605, 1.943	Same
Indiana University Health (Methodist, Riley, University) (Indianapolis)	500	44	19.082	2.306	0.000	1.675, 3.096	Higher
Indiana University Health Ball Memorial Hospital (Muncie)	151	5	4.917	1.017	0.545	0.330, 2.373	Same
Lutheran Hospital Of Indiana (Fort Wayne)	228	18	7.389	2.436	0.001	1.443, 3.850	Higher
Memorial Hospital Of South Bend (South Bend)	178	4	5.420	0.738	0.370	0.201, 1.890	Same
Methodist Hospitals Inc (Gary)	119	6	4.144	1.448	0.238	0.531, 3.151	Same
Parkview Regional Medical Center (Fort Wayne)	409	2	12.603	0.159	0.000	0.019, 0.573	Lower
Porter Regional Hospital (Valparaiso)	63	0	2.039	0.000	0.130	-- , 1.809	Same
St. Mary's Medical Center Of Evansville Inc (Evansville)	194	1	6.510	0.154	0.011	0.004, 0.856	Lower
St. Vincent Hospital & Health Services (Indianapolis)	355	8	11.455	0.698	0.194	0.302, 1.376	Same
Union Hospital Inc (Terre Haute)	130	7	4.459	1.570	0.164	0.631, 3.235	Same

SSI calculations use a 2006-2008 NHSN baseline period. Data contained in this report were last generated on September 26, 2013. Data includes in-plan, inpatient colon surgeries in patients  $\geq 18$  years of age, and deep incisional primary and organ/space SSIs with an event date within 30 days of the procedure date. Excludes all superficial incisional SSIs and deep incisional secondary SSIs.

\* Lower boundary of 95% Confidence Interval is only calculated if Observed Infections > 0.

\*\* Data has not been verified by the hospital.

† Data suppressed for hospitals reporting < 20 procedures in order to protect patient confidentiality.

--- SIR and corresponding statistics only calculated if Expected Infections  $\geq 1$ .

n/a Not applicable. Hospital does not perform this type of surgery and is not required to report.

### SSI SIRS for Abdominal Hysterectomy

The following table shows SSI data for abdominal hysterectomy procedures performed in 2012. Each hospital's SIR is compared to the national data and color-coded depending on whether the hospital's infections were significantly higher than, significantly lower than, or the same as the national data. Hospitals reporting fewer than 20 procedures have their data suppressed in order to protect patient confidentiality.

Of the 109 hospitals that reported data for abdominal hysterectomies, 20 had sufficient data to calculate a SIR and be publicly reported. Of those, no hospitals reported significantly lower numbers of SSIs, while one hospital reported significantly more infections than predicted. The remaining 19 hospitals reported data that was similar to the national data.

**Table 13: Hospital-Specific SSI Data for Abdominal Hysterectomies, January 1, 2012- December 31, 2012**

Hospital Name	Number of Procedures	Observed Infections	Expected Infections	SSI SIR	p-value	Confidence Interval*	National Comparison
<b>Hospital Bedsize ≤ 25</b>							
Cameron Memorial Community Hospital Inc (Angola)	8	†	†	†	†	†	†
Community Hospital Of Bremen Inc (Bremen)	4	†	†	†	†	†	†
Decatur County Memorial Hospital (Greensburg)	5	†	†	†	†	†	†
Doctors Neuromedical Hospital & Brain Institute (Bremen)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Dukes Memorial Hospital (Peru)	14	†	†	†	†	†	†
Franciscan St. Francis Health (Carmel)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Gibson General Hospital (Princeton)**	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Greene County General Hospital (Linton)	9	†	†	†	†	†	†
Harrison County Hospital (Corydon)	50	0	0.542	---	---	---	---
Hind General Hospital LLC (Hobart)	16	†	†	†	†	†	†
Indiana University Health Bedford Hospital (Bedford)	4	†	†	†	†	†	†
Indiana University Health Blackford Hospital (Hartford City)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Indiana University Health Paoli Hospital (Paoli)	1	†	†	†	†	†	†
Indiana University Health Tipton Hospital Inc (Tipton)	22	0	0.182	---	---	---	---
Indiana University Health White Memorial Hospital (Monticello)	0	†	†	†	†	†	†
Margaret Mary Community Hospital Inc (Batesville)	60	0	0.440	---	---	---	---
Parkview LaGrange Hospital (LaGrange)	20	0	0.154	---	---	---	---
Perry County Memorial Hospital (Tell City)	7	†	†	†	†	†	†
Physicians' Medical Center LLC (New Albany)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Pinnacle Hospital (Crown Point)	4	†	†	†	†	†	†
Pulaski Memorial Hospital (Winamac)	0	†	†	†	†	†	†
Putnam County Hospital (Greencastle)	0	†	†	†	†	†	†
Rush Memorial Hospital (Rushville)	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Hospital Name	Number of Procedures	Observed Infections	Expected Infections	SSI SIR	p-value	Confidence Interval*	National Comparison
Scott Memorial Hospital (Scottsburg)**	2	†	†	†	†	†	†
St. Vincent Clay Hospital Inc (Brazil)	5	†	†	†	†	†	†
St. Vincent Dunn Hospital Inc (Bedford)	3	†	†	†	†	†	†
St. Vincent Frankfort Hospital Inc (Frankfort)**	0	†	†	†	†	†	†
St. Vincent Jennings Hospital Inc (North Vernon)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Mercy Hospital (Elwood)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Randolph Hospital Inc (Winchester)	2	†	†	†	†	†	†
St. Vincent Salem Hospital Inc (Salem)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Williamsport Hospital Inc (Williamsport)	1	†	†	†	†	†	†
Sullivan County Community Hospital (Sullivan)	6	†	†	†	†	†	†
The Heart Hospital At Deaconess Gateway LLC (Newburgh)	0	†	†	†	†	†	†
Union Hospital Clinton (Clinton)	8	†	†	†	†	†	†
Wabash County Hospital (Wabash)	0	†	†	†	†	†	†
Woodlawn Hospital (Rochester)	7	†	†	†	†	†	†
<b>Hospital Bedsize 26-50</b>							
Adams Memorial Hospital (Decatur)	0	†	†	†	†	†	†
Central Indiana Amg Specialty Hospital LLC (Muncie)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Community Howard Specialty Hospital (Kokomo)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Dekalb Health (Auburn)	10	†	†	†	†	†	†
Indiana Orthopaedic Hospital LLC (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Jasper County Hospital (Rensselaer)	7	†	†	†	†	†	†
Jay County Hospital (Portland)	13	†	†	†	†	†	†
Kentuckiana Medical Center LLC (Clarksville)	0	†	†	†	†	†	†
Kindred Hospital Northern Indiana (Mishawaka)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Monroe Hospital (Bloomington)	11	†	†	†	†	†	†
Orthopaedic Hospital At Parkview North LLC (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Hospital Name	Number of Procedures	Observed Infections	Expected Infections	SSI SIR	p-value	Confidence Interval*	National Comparison
Parkview Huntington Hospital (Huntington)	5	†	†	†	†	†	†
Parkview Noble Hospital (Kendallville)	15	†	†	†	†	†	†
Parkview Whitley Hospital (Columbia City)	22	0	0.182	---	---	---	---
Rehabilitation Hospital Of Fort Wayne General Partnership (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Rivercrest Specialty Hospital (Mishawaka)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Select Specialty Hospital (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Select Specialty Hospital (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Joseph's Regional Medical Center (Plymouth)	16	†	†	†	†	†	†
St. Mary's Warrick Hospital Inc (Boonville)	0	†	†	†	†	†	†
St. Vincent Seton Specialty Hospital (Lafayette)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
The Orthopaedic Hospital Of Lutheran Health Network (Fort Wayne)	0	†	†	†	†	†	†
Unity Medical And Surgical Hospital (Mishawaka)	1	†	†	†	†	†	†
Vibra Hospital Of Fort Wayne (Fort Wayne)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Vibra Hospital Of Northwestern Indiana (Crown Point)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Hospital Bedsize 51-100</b>							
Bluffton Regional Medical Center (Bluffton)	20	0	0.209	---	---	---	---
Daviess Community Hospital (Washington)	2	†	†	†	†	†	†
Dearborn County Hospital (Lawrenceburg)	31	0	0.346	---	---	---	---
Franciscan Physicians Hospital LLC (Munster)	20	0	0.160	---	---	---	---
Franciscan St. Elizabeth Health (Lafayette- Central)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Franciscan St. Francis Health (Mooresville)	13	†	†	†	†	†	†
Hancock Regional Hospital (Greenfield)	35	0	0.321	---	---	---	---
Healthsouth Deaconess Rehabilitation Hospital (Evansville)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Henry County Memorial Hospital (New Castle)	3	†	†	†	†	†	†



Hospital Name	Number of Procedures	Observed Infections	Expected Infections	SSI SIR	p-value	Confidence Interval*	National Comparison
Indiana University Health Morgan Hospital Inc (Martinsville)	0	†	†	†	†	†	†
Indiana University Health Starke Hospital (Knox)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kindred Hospital Indianapolis (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kindred Hospital Indianapolis South (Greenwood)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Kindred Hospital Northwest Indiana (Hammond)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
King's Daughters' Health (Madison)	17	†	†	†	†	†	†
Kosciusko Community Hospital (Warsaw)	51	0	0.404	---	---	---	---
Major Hospital (Shelbyville)	18	†	†	†	†	†	†
Marion General Hospital (Marion)	97	0	1.050	0.000	0.350	-- , 3.513	Same
Memorial Hospital (Logansport)	49	0	0.665	---	---	---	---
Regency Hospital Of Northwest Indiana (East Chicago)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Rehabilitation Hospital Of Indiana Inc (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Schneck Medical Center (Seymour)	62	0	0.588	---	---	---	---
Select Specialty Hospital- Evansville (Evansville)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Southern Indiana Rehabilitation Hospital (New Albany)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Catherine Regional Hospital (Charlestown)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
St. Vincent Seton Specialty Hospital (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
The Indiana Heart Hospital (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
The Women's Hospital (Newburgh)	370	1	3.581	0.279	0.128	0.007, 1.556	Same
Witham Health Services (Lebanon)	2	†	†	†	†	†	†
<b>Hospital Bedsize 101-200</b>							
Columbus Regional Hospital (Columbus)	72	0	0.562	---	---	---	---
Community Hospital Of Anderson And Madison County (Anderson)	87	0	0.987	---	---	---	---
Community Hospital South (Indianapolis)	89	0	0.985	---	---	---	---
Community Howard Regional Health Inc (Kokomo)	20	0	0.210	---	---	---	---

Hospital Name	Number of Procedures	Observed Infections	Expected Infections	SSI SIR	p-value	Confidence Interval*	National Comparison
Dupont Hospital LLC (Fort Wayne)	79	0	0.641	---	---	---	---
Fayette Regional Health System (Connersville)	14	†	†	†	†	†	†
Franciscan St. Elizabeth Health (Crawfordsville)	20	0	0.210	---	---	---	---
Franciscan St. Elizabeth Health (Lafayette- East)	190	1	1.692	0.591	0.496	0.015, 3.293	Same
Franciscan St. Margaret Health (Dyer)	124	0	1.196	0.000	0.302	-- , 3.084	Same
Good Samaritan Hospital (Vincennes)	54	0	0.612	---	---	---	---
Hendricks Regional Health (Danville)	53	0	0.524	---	---	---	---
Indiana University Health Arnett Hospital (Lafayette)	22	0	0.191	---	---	---	---
Indiana University Health Goshen Hospital (Goshen)	91	0	0.928	---	---	---	---
Indiana University Health North Hospital (Carmel)	354	2	3.224	0.620	0.375	0.075, 2.241	Same
Indiana University Health West Hospital (Avon)	121	0	1.095	0.000	0.335	-- , 3.369	Same
Johnson Memorial Hospital (Franklin)**	19	†	†	†	†	†	†
Memorial Hospital And Health Care Center (Jasper)	26	1	0.231	---	---	---	---
Riverview Hospital (Noblesville)	28	1	0.276	---	---	---	---
St. Catherine Hospital Inc (East Chicago)	16	†	†	†	†	†	†
St. Joseph Hospital (Fort Wayne)	12	†	†	†	†	†	†
St. Joseph Hospital & Health Center Inc (Kokomo)	24	0	0.278	---	---	---	---
St. Mary Medical Center Inc (Hobart)	46	0	0.458	---	---	---	---
St. Vincent Anderson Regional Hospital Inc (Anderson)	60	0	0.641	---	---	---	---
St. Vincent Carmel Hospital Inc (Carmel)	44	0	0.345	---	---	---	---
St. Vincent Heart Center Of Indiana LLC (Indianapolis)	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Westview Hospital (Indianapolis)	16	†	†	†	†	†	†
<b>Hospital Bedsize 201-300</b>							
Clark Memorial Hospital (Jeffersonville)	108	0	0.994	---	---	---	---
Community Hospital East (Indianapolis)	39	0	0.514	---	---	---	---
Community Hospital North (Indianapolis)	141	1	1.545	0.647	0.543	0.016, 3.606	Same

Hospital Name	Number of Procedures	Observed Infections	Expected Infections	SSI SIR	p-value	Confidence Interval*	National Comparison
Elkhart General Hospital (Elkhart)	53	0	0.506	---	---	---	---
Floyd Memorial Hospital And Health Services (New Albany)	7	†	†	†	†	†	†
Franciscan St. Anthony Health (Crown Point)	149	1	1.459	0.685	0.572	0.017, 3.819	Same
Franciscan St. Margaret Health (Hammond)	17	†	†	†	†	†	†
Indiana University Health Bloomington Hospital (Bloomington)	132	0	1.267	0.000	0.282	-- , 2.912	Same
Indiana University Health La Porte Hospital (La Porte)	60	0	0.614	---	---	---	---
Reid Hospital & Health Care Services (Richmond)	8	†	†	†	†	†	†
St. Joseph Regional Medical Center (Mishawaka)	137	1	1.289	0.776	0.631	0.020, 4.322	Same
Terre Haute Regional Hospital (Terre Haute)	43	0	0.414	---	---	---	---
William N Wishard Memorial Hospital (Indianapolis)	123	1	1.514	0.661	0.553	0.017, 3.680	Same
<b>Hospital Bedsize &gt; 300</b>							
Community Hospital (Munster)	271	6	2.080	2.885	0.020	1.059, 6.279	Higher
Deaconess Hospital Inc (Evansville)	6	†	†	†	†	†	†
Franciscan St. Anthony Health (Michigan City)	71	0	0.687	---	---	---	---
Franciscan St. Francis Health (Indianapolis)	121	2	1.300	1.538	0.373	0.186, 5.557	Same
Indiana University Health (Methodist, Riley, University (Indianapolis))	355	5	4.365	1.145	0.442	0.372, 2.673	Same
Indiana University Health Ball Memorial Hospital (Muncie)	90	1	0.931	---	---	---	---
Lutheran Hospital Of Indiana (Fort Wayne)	166	0	1.597	0.000	0.203	-- , 2.310	Same
Memorial Hospital Of South Bend (South Bend)	217	1	1.940	0.515	0.423	0.013, 2.872	Same
Methodist Hospitals Inc (Gary)	95	1	0.975	---	---	---	---
Parkview Regional Medical Center (Fort Wayne)	152	1	1.300	0.769	0.627	0.019, 4.286	Same
Porter Regional Hospital (Valparaiso)	27	0	0.205	---	---	---	---
St. Mary's Medical Center Of Evansville Inc (Evansville)	113	0	1.322	0.000	0.267	-- , 2.790	Same
St. Vincent Hospital & Health Services (Indianapolis)	912	7	8.648	0.809	0.367	0.325, 1.668	Same

Hospital Name	Number of Procedures	Observed Infections	Expected Infections	SSI SIR	p-value	Confidence Interval*	National Comparison
<b>Union Hospital Inc (Terre Haute)</b>	216	0	2.501	0.000	0.082	-- , 1.475	Same

SSI calculations use a 2006-2008 NHSN baseline period. Data contained in this report were last generated on September 26, 2013. Data includes in-plan, inpatient colon and abdominal hysterectomy procedures in patients  $\geq 18$  years of age, and deep incisional primary and organ/space SSIs with an event date within 30 days of the procedure date. Excludes all superficial incisional SSIs and deep incisional secondary SSIs.

\* Lower boundary of 95% Confidence Interval is only calculated if Observed Infections  $> 0$ .

\*\* Data has not been verified by the hospital.

† Data suppressed for hospitals reporting  $< 20$  procedures in order to protect patient confidentiality.

--- SIR and corresponding statistics only calculated if Expected Infections  $\geq 1$ .

n/a Not applicable. Hospital does not perform this type of surgery and is not required to report.

## **CONCLUSIONS**

This first annual Indiana HAI report presents statewide and hospital-specific data that provide a benchmark for infection prevention efforts in the state. It is anticipated that this report will help hospitals strengthen their infection control programs, increase the overall awareness of HAIs, and help consumers make informed decisions about their healthcare.

In 2012, 119 Indiana hospitals reported CLABSI, CAUTI, and SSI data to the ISDH. The data collected from these hospitals is used to measure the state's progress toward the national HAI prevention goals as well as identify specific hospitals where infection prevention issues may need to be addressed.

Key findings of this report include:

- Indiana hospitals reported a CLABSI SIR of 0.592. The overall observed number of infections for Indiana was 41% lower than predicted, based on national data. Indiana is on track to meet the national prevention target, which is a 50% reduction in infections by the end of 2013.
- Indiana hospitals reported a CAUTI SIR of 1.122. The overall observed number of infections was 12% more than predicted, based on national data. The national prevention target is a 25% reduction, so Indiana hospitals need to improve infection prevention efforts in order to reach that goal by the end of 2013.
- Indiana hospitals reported an SSI SIR of 1.055 for colon surgeries, however, this was not a statistically significant increase in infections. More improvement is needed to achieve the 25% reduction goal by the end of 2013.
- Indiana hospitals reported an SSI SIR of 0.613 for abdominal hysterectomies. The overall observed number of infections was 39% lower than predicted, based on national data. Hospitals in Indiana have already exceeded the national goal of a 25% reduction by the end of 2013 and will continue efforts to reduce infections further.
- In hospital-specific data, 17 hospitals reported significantly lower numbers of CLABSI than predicted; only one hospital reported significantly more infections than predicted; 37 hospitals reported infection data similar to the national average.
- Five hospitals reported significantly lower numbers of CAUTI; five hospitals reported significantly higher numbers; 47 hospitals reported data similar to the national average.
- For SSIs associated with colon surgery, three hospitals reported significantly lower numbers of infections than predicted; three hospitals reported significantly higher numbers than predicted; 45 hospitals reported data that was similar to the national average.

- For SSIs associated with abdominal hysterectomy, no hospitals reported significantly lower numbers of SSIs; one hospital reported significantly more infections than predicted; 19 hospitals reported data that was similar to the national average.

Consumers are once again cautioned against using the data provided in this report to compare hospitals directly with one another; the SIR values are not intended to be used as any type of ranking system. Many factors influence the SIR, and one measure alone cannot summarize the quality of healthcare at a given hospital. The data in this report are intended to show whether a hospital identified significantly more, significantly less, or the same number of infections as they were predicted to have. Consumers and hospitals can judge a hospital's performance in infection prevention by looking at how the SIR changes over time.

Healthcare associated infections represent a huge public health burden and everyone has a role to help prevent them. It is just as important for consumers to understand infection prevention practices as it is for healthcare workers. Consumers seeking additional information on ways to prevent HAIs can refer to Appendix A. Consumers are encouraged to consider multiple sources of information when making their healthcare decisions. After reading this report, consumers can seek additional information on hospitals of interest and always discuss their healthcare options with their healthcare provider.

The ISDH is committed to improving healthcare quality and reducing the overall HAI burden in Indiana. The ISDH will continue to collect and report infection data from hospitals and will look forward to tracking Indiana's progress toward the elimination of HAIs.

## **REFERENCES**

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## **APPENDIX A: Infection Prevention Resources**

### **What can you do to prevent infections?**

Healthcare associated infections are the most common complication of healthcare, resulting in significant patient morbidity and mortality. Fortunately patients can do several things to prevent these infections. Patients should know the facts about HAIs and understand their role in infection prevention. The ISDH Healthcare Associated Infection Resource Center has many resources available to inform and educate patients, including the following list of ten action steps to prevent HAIs:

1. **Wash your hands.** Proper hand hygiene is the best way to prevent infections. Patients should wash their hands with soap and water often, especially after using the restroom, before eating, before and after touching “high touch” areas, and after coughing or sneezing. Hand sanitizer can also be used in many situations but certain germs are more effectively eliminated with soap and water.
2. **Speak up.** You have the power to change how people act. If you have a concern, bring it to the attention of your healthcare provider.
3. **Ask your healthcare worker and caregiver to wash their hands.** This step can be intimidating, but patients have the right to stay safe while receiving healthcare. If you are unsure if your healthcare provider or caregiver has washed their hands, ask them to do so.
4. **Prepare yourself.** Patients should ask questions, make lists, and get answers before medical procedures.
5. **Educate yourself.** Patients should do their research. They should be knowledgeable and informed about their own healthcare.
6. **Know the signs of infection.** Patients should be aware of possible risks and signs of infection. If an infection is suspected, immediately report it to the healthcare provider.
7. **Ask healthcare providers and caregivers to use personal protective equipment if necessary.** In addition to washing their hands, it might be necessary for healthcare workers to use personal protective equipment such as gloves, gowns, or masks. Patients can ask their healthcare provider to use these items.
8. **Keep “high touch” areas clean and disinfected.** High touch areas such as phones, bed rails, doorknobs, eating trays, and bathroom fixtures, can harbor many germs. These areas should be cleaned often.
9. **Discuss antibiotics with your doctor.** Proper antibiotic use is essential to preventing infections. Patients should discuss their antibiotics with their healthcare provider and ALWAYS take them as prescribed.
10. **Avoid unnecessary catheter use.** Some HAIs are associated with the use of a catheter, and the longer the catheter is in place, the greater the risk of developing an infection.



Patients can ask their healthcare provider if the catheter is necessary, and if so, they can ask to have it removed as soon as possible.

More information on preventing HAIs, including links to informative online educational modules, can be found on the ISDH Healthcare Associated Infections Resource Center website at <http://www.in.gov/isdh/24769.htm>.

## Consumer Resources

Hospitals differ in the services they offer as well as the quality of care provided. The following websites can help consumers learn more about the hospitals in their area and even compare specific facilities. While these resources provide valuable information, healthcare decisions should NOT be based on this information alone. Consumers should research multiple sources and always consult with their healthcare provider before making important healthcare decisions.

- Hospital Compare website: <http://www.medicare.gov/hospitalcompare/search.html>
- ISDH Hospital Consumer Reports:  
<http://myobiee.in.gov/isdh2/saw.dll?Dashboard&NQuser=Terganamyt190866298kyheba vabnamam3ahd5gs6sdnakwwbqwjinsh&NQPassword=saranreqmustsk192792765kahseg4090msajhamahagabkauatabagat>
- The Leap Frog Group: <http://www.leapfroggroup.org/>

## Additional Information

- CDC HAI Page: <http://www.cdc.gov/hai/>
- CDC NHSN Page: <http://www.cdc.gov/nhsn/index.html>
- CDC Winnable Battles: <http://www.cdc.gov/WinnableBattles/targets/HAI/>
- HHS National Action Plan: <http://www.hhs.gov/ash/initiatives/hai/actionplan/index.html>
- HHS National Targets: <http://www.hhs.gov/ash/initiatives/hai/nationaltargets/index.html>
- ISDH HAI Page: <http://www.in.gov/isdh/25479.htm>
- ISDH Healthcare Associated Infections Resource Center:  
<http://www.in.gov/isdh/24769.htm>

## **APPENDIX B: Glossary of Terms**

**Bed Size:** The number of staffed beds in a hospital or patient care location

**Catheter (Indwelling Urinary Catheter):** A drainage tube inserted into the urinary bladder through the urethra that is left in place and is connected to a drainage bag, also called a Foley catheter. This does not include suprapubic, condom, or straight in-and-out catheters or nephrostomy tubes. This definition includes indwelling urethral catheters that are used for intermittent or continuous irrigation.

**Catheter Associated Urinary Tract Infection (CAUTI):** A urinary tract infection associated with the use of an indwelling urinary catheter.

**Catheter Days:** A daily count of the number of patients with an indwelling urinary catheter in place in a patient care location during a specific time period. Daily counts are conducted at the same time each day and then a monthly total is calculated.

**Central Line:** An intravascular catheter (tube) placed in a large vein in the neck, chest, or groin that terminates at or close to the heart. A central line is used for infusion, withdrawal of blood, or hemodynamic monitoring.

**Central Line Associated Bloodstream Infection (CLABSI):** An infection in the blood related to the use of a central line.

**Central Line Days:** A daily count of the number of patients with a central line in place in a patient care location during a specific time period. Daily counts are conducted at the same time each day and then a monthly total is calculated.

**Confidence Interval:** A measure used in statistical testing. It is a range of values in which there is a 95% probability that the true value falls within that range.

**Critical Access Hospital:** A hospital, usually with fewer than 25 hospital beds, that provides limited inpatient hospital services to people in rural areas.

**Healthcare Associated Infection (HAI):** An infection that a patient can acquire while receiving medical treatment in a healthcare setting.

**Inpatient:** A patient whose date of admission to a healthcare facility and date of discharge are on different calendar days.

**Intensive Care Unit (ICU):** Also called a critical care unit. A nursing care area that provides intensive observation, diagnosis, and therapeutic procedures for adults and/or children who are critically ill. An ICU excludes nursing areas that provide step-down, intermediate care, or telemetry only. Specialty care areas are also excluded. In the NHSN, the type of ICU is

determined by the kind of patients cared for in that unit according to the 80% rule. That is, if 80% of patients are of a certain type (e.g., patients with trauma), then that ICU is designated as that type of unit.

Long Term Acute Care Hospital (LTAC): An acute care hospital that provides medical care to patients who stay in the hospital, on average, more than 25 days.

Long Term Acute Care Intensive Care Unit (LTAC ICU): A critical care area specializing in the evaluation, treatment, and management of patients that require high observance/acute and/or special care and require extended stay in an acute care environment.

Neonatal Intensive Care Unit (NICU): A hospital unit organized with personnel and equipment to provide continuous life support and comprehensive care for high-risk newborn infants and those with complex and critical illness.

Outpatient: A patient whose date of admission to the healthcare facility and date of discharge are the same calendar day.

Patient Days: A daily count of the number of patients in the patient care location during a time period. To calculate patient days, for each day of the month at the same time each day, the number of patients is recorded. At the end of the month, the daily counts are totaled and entered into the NHSN. Patient days from electronic databases may be used as long as the counts are not substantially different (+/- 5%) from manually-collected counts, validated for a minimum of three months.

P-value: A value used in statistical testing that measures significance. A p-value that is less than 0.05 indicates statistical significance, while a p-value greater than or equal to 0.05 indicates there is no statistical significance.

Surgical Site Infection (SSI): An infection that occurs after surgery at the part of the body where the surgery took place.

Standardized Infection Ratio (SIR): A summary measure used to track HAIs at the local, state, and national levels over time. The SIR adjusts for patients of varying risk within each hospital. It is calculated by dividing the observed number of infections by the expected number of infections. The expected number of infections is calculated using national data during a specified baseline period.